3' Primer for gamma 1, and 2 with Sal 1 site:

GCA TGA GTC TGA CAG CTG TTT ACC CGG AGA CAG GGA GAG GCT (SEQ. ID NO: 80)

IN THE CLAIMS:

Please substitute the following amended claims for the claims having the same claim number:

6. (Amended) The method of Claim 5 wherein the light chain of said SHIgM22 (LYM22) comprises the amino acid sequence selected from SEQ ID NOS: 10 and 9.

7. (Amended) The method of Claim 5 wherein the heavy chain of said SHIgM22 (LYM22) comprises the amino acid sequence selected from SEQ ID NOS: 8 and 7.

9. (Amended) The method of Claim 8 wherein the light chain of said sHIgM46 (LYM46) comprises the amino acid sequence selected from SEQ ID NO: 51.

10. (Amended) The method of Claim 8 wherein the heavy chain of said sHIgM46(LYM46) comprises the amino acid sequence selected from SEQ ID NO: 49.

40. (Amended) A method according to any of Claims 5, 8, 15, 16, 23, 24, 32, 33, 38 or 39 wherein said monoclonal antibody has an amino acid sequence which corresponds at least in part to an amino acid sequence selected from the group consisting of FIGURE 35 (SEQ ID NO: 8, 7), FIGURE 36 (SEQ ID NO: 10, 9), FIGURE 71 (SEQ ID NO: 49), FIGURE 72 (SEQ ID NO: 51) and active fragments thereof.

45. (Amended) A DNA sequence or degenerate variant thereof, which encodes an antibody, a peptide analog thereof, a hapten corresponding thereto, or an active fragment thereof, selected from the group consisting of:

(A) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 35 (SEQ ID NO: 8, 7);

(B) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 36 (SEQ ID NO: 10, 9);

(C) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 71 (SEQ ID NO: 49);

(D) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 72 (SEQ ID NO: 51);

(E) DNA sequences that hybridize to any of the foregoing DNA sequences under standard hybridization conditions; and

(F) DNA sequences that code on expression for an amino acid sequence encoded by any of the foregoing DNA sequences.

46. (Amended) A recombinant DNA molecule comprising a DNA sequence or degenerate variant thereof, which encodes an antibody, a peptide analog thereof, a hapten corresponding thereto, or an active fragment thereof, selected from the group consisting of:

(A) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 35 (SEQ ID NO: 8, 7);

(B) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 36 (SEQ ID NO: 10, 9);

(C) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 71 (SEQ ID NO: 49);

(D) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 72 (SEQ ID NO: 51);

(E) DNA sequences that hybridize to any of the foregoing DNA sequences under standard hybridization conditions; and

(F) DNA sequences that code on expression for an amino acid sequence encoded by any of the foregoing DNA sequences.

50. (Amended) A unicellular host transformed with a recombinant DNA molecule comprising a DNA sequence or degenerate variant thereof, which encodes an antibody, a peptide analog thereof, a hapten corresponding thereto, or an active fragment thereof, said DNA sequence selected from the group consisting of:

(A) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 35 (SEQ ID NO: 8, 7);

(B) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 36 (SEQ ID NO: 10, 9);

(C) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 71 (SEQ ID NO: 49);

(D) the DNA sequence encoding a protein having a sequence corresponding to at least a portion of FIGURE 72 (SEQ ID NO: 51);

(E) DNA sequences that hybridize to any of the foregoing DNA sequences under standard hybridization conditions; and

(F) DNA sequences that code on expression for an amino acid sequence encoded by any of the foregoing DNA sequences;

wherein said DNA sequence is operatively linked to an expression control sequence.

58. (Amended) The method of Claim 57 wherein said autoantibody has an amino acid sequence which corresponds at least in part to an amino acid sequence selected from the group consisting of FIGURE 35 (SEQ ID NO: 8, 7), FIGURE 36 (SEQ ID NO: 10, 9), FIGURE 71 (SEQ ID NO: 49), FIGURE 72 (SEQ ID NO: 51) and active fragments thereof.

62. (Amended) An antibody produced by injecting a substantially immunocompetent host with an antibody-producing effective amount of an antibody peptide, and harvesting said antibody, said antibody peptide comprising an amino acid sequence selected from the group consisting of FIGURE 35 (SEQ ID NO: 8, 7), FIGURE 36 (SEQ ID NO: 10, 9), FIGURE 71 (SEQ ID NO: 49), FIGURE 72 (SEQ ID NO: 51) and active fragments thereof.